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The Value of Coached Behaviour Modification in the Effective Management of Attention Deficit Hyperactivity Disorder (ADHD)

Tilla Olivier* and Ana Gomes
Nelson Mandela Metropolitan University,
South Africa

1. Introduction

Attention Deficit Hyperactivity Disorder (also referred to as ADHD) depicts a very common, chronic, neurobiological, medical, brain-based, behavioural disorder (Olivier, Gomes & Greyling, 2009:237), with psychiatric co-morbidities, such as depression, anxiety, substance abuse and behavioural disorders (Gooding, 2007a:40), often continuing through childhood and adolescence, into adulthood (Sherman, Rasmussen & Baydala, 2008:347; Weyandt & DuPaul, 2008:311; Young & Amarasinghe, 2009:116).

It is thought to be caused by an imbalance of two neurotransmitters to the brain: dopamine and serotonin (Gooding, 2007a:40). According to Parker & Boutelle (2009:204), ADHD is “now understood as pervasive impairment in the self-regulation of behaviour”. The name ADHD is frequently employed as a marker, which Graham (2008a:85) refers to as a “lexical label”, for people who face significant difficulties, such as lack of concentration, impulsiveness, extreme levels of activity and lack of control (Barkley, 2005:36).

ADHD *prevails* in every country and ethnic group (Barkley, 2005:91). Occurrence in South Africa corresponds with that in the USA and Europe, where it is estimated that up to 12% of school-age children (Sandler, Glesne & Gellert, 2008:111; Webb, Amend, Webb, Goerss, Beljan, & Olenchek, 2005:42), up to 8% of college students (Weyandt & DuPaul, 2008:312), and up to 5% of adults (Plumer & Stoner, 2005:290; Swartz, Prevatt & Proctor, 2005:647) suffer from ADHD.

In the latter group it manifests in “inattention, impulsivity, disorganisation and a lack of self-regulation” (Swartz, *et al.*, 2005:647). The number of new cases reported each day, known as the incidence of ADHD, also seems to be on the increase, but this may be due to more media attention of late (Gomes, 2008:39). However, Gooding (2007b:37) claims that currently “80% of adults with ADHD are undiagnosed and untreated”.

ADHD has impairing *consequences* for the everyday psychological, academic and social functioning (Weyandt & DuPaul, 2008:312), as well as the behaviour of the individual; these, in turn, further influence the individual’s growing experiences (Sherman, *et al.*, 2008: 347;

Plumer & Stoner, 2005:290; Webb, *et al.*, 2005:36). The symptoms of ADHD are thought to be aggravated by the individual's experiences, neurological and nutritional factors and environmental variables (Sonna, 2005:36).

The problems experienced include cognitive, emotional, social, behavioural and motivational deficits (Rief, 2005:4; Steenkamp, 2001:72; Swartz, *et al.*, 2005: 647). These problems result in learning disabilities, self-regulation problems, external locus of control, perception, speech and sleep problems, disorganisation, lack of time-management skills, the inability to prioritise tasks and poor stress-management skills (Barkley, 2005:2005; Gooding, 2007b:37; Olivier, *et al.*, 2009:238) The manifesting behaviour problems are related to the individual's inability to maintain the level of attention necessary to internalise information; a higher level of impatience; the inability to control movement and activity; and boredom.

According to Swartz, *et al.* (2005:647), adult ADHD-sufferers are prone to "academic underachievement, drug abuse, poor occupational adjustment, anti-social behaviour, relationship difficulties, mood and affective disorders, and personality disorders". This is confirmed by Weyandt and DuPaul (2008:312), who maintain that the "...risk for lower achievement scores, poor academic coping skills in general, but especially in writing", are the prevalent characteristics of ADHD-diagnosed college students. They also find it difficult to adjust to college life and to form social relationships.

In order to counteract the dilemmas faced by ADHD, the presence of ADHD needs to be established through proper *diagnosis*. The American Psychiatric Association's DSM-IV RT (2000) differentiates between the following three sub-types: ADHD-I: the predominantly inattentive type; ADHD-HI: the predominantly hyperactive-impulsive type; and ADHD-C: the combined type. They also provide clear indicators of further symptoms for diagnosis.

These are clustered around the three cores of: poor sustained attention, poor impulse control and apathy (Gomes, 2008:27). The diagnosis must be done professionally by an expert and is not a simple matter. It is believed that in some cases parents contribute to the diagnosis - in order to alleviate their own responsibility and blame for the child's behaviour, and to gain access to school support services (Graham, 2008b:7).

Numerous *definitions* of ADHD in the literature also refer to the specific syndrome characteristics of inattention, hyper-responsiveness, impulsivity, poor inhibition and tediousness (Rief, 2005: 4). Furthermore, the literature mentions challenges such as emotional outbursts, enthusiasm shortages, low self-esteem, and difficulty with problem-solving (Aberson, Shure & Goldstein, 2007: 291; Olivier, *et al.*, 2009: 237).

However, in this chapter we argue that a definition that focuses on the child's differences as *strengths*, rather than as deficiencies, indicates that ADHD is the result of high responsiveness and strong alertness. In turn, the individual's creativity and expression are enhanced, which may be further complemented by increased motor movement, intensified hearing capacity, tactile sensitivity, above-average peripheral vision and vulnerable emotional balance (Gomes, 2008:31).

The diagnosis can also shed light on the specific strengths of the individual to direct and reinforce during the *management* of ADHD. Seen from such a viewpoint, ADHD then becomes more manageable than when it is perceived as a deficiency (Webb, *et al.*, 2005:100). This is precisely what will determine and direct the management approach.

The following pertinent *question*, therefore, becomes relevant:

How can ADHD-related behaviour be effectively managed?

2. Management of ADHD

Against the background discussed above, it becomes apparent that the individual diagnosed with ADHD experiences major challenges, which make it difficult to manage the individual's behaviour (Aberson, Shure & Goldstein, 2007; Barkley, 2005; Rief, 2005; Olivier, *et al.*, 2009: 237). The individual's regular unacceptable and/or inappropriate conduct often results in further aggravated predicaments for which solutions must constantly be found (Johnston & Mash, 2001; Khamis, 2006).

ADHD is a continuing, chronic disorder, which is not curable; but it is treatable and manageable - through the right intervention and management approach (Jacklyn & Ravichandran, 2009:1057; Gooding, 2007a:40). Many different strategies for intervention and approaches to the treatment of ADHD exist. When referring to the management of ADHD, this implies, "not only finding the best possible method of intervention, but also the implementation and monitoring thereof" (Gomes, 2008:55; Rief, 2005: 29).

Programmes for managing ADHD should be flexible, to allow for frequent adjustment to the individual's specific needs. A programme's purpose and effectiveness should also be assessed and improved continuously, in order to ensure that it remains effective and relevant (Gomes, 2004:126).

No single approach exists that can solve the difficulties of ADHD (Heriot, Evans & Foster, 2007:121). According to Graham (2008b:17), "ADHD comes to be understood through a bio-psycho-social theoretical framework". The management of ADHD should therefore be *multimodal* in nature (Graham, 2008b: 20; Sherman, *et al.*, 2008:348; Gooding, 2007a:40; Heriot, *et al.*, 2007:121), because a combination of approaches seems to be more effective with the biological, as well as the social-emotional aspects of ADHD. It includes the following:

2.1 Physical assessment

Before any management of the disorder can commence, the individual has to undergo a thorough physical check-up by a clinician, to ascertain the individual's general health condition in comparison with the norm, and to further ensure that the symptoms being experienced are not caused by other illnesses or deficiencies (Young & Amarasinghe, 2009:116).

2.2 Medical/pharmacological approaches

It is usually believed that ADHD can best be managed by means of biochemical treatment, depending on the needs, mass and age of the individual involved (Hallowell & Ratey, 1995:238). This is referred to as the "first-line approach" (Graham, 2008a:92; Graham, 2008b:19). Medication is consequently often prescribed to improve attention and to reduce hyperactivity. However, medication treatment is usually more effective when coupled with coached behaviour modification.

Based on the “medical model” (Graham 2008a: 85; Graham, 2008b:19) and because it is believed that the medication will “increase the level of dopamine and norepinephrine between the synapses or neurotransmitters” of the brain, prescriptions for stimulants, such as Ritalin and Concerta, have increased over time (Graham, 2008a:86.87). Criticism against the medical model is that it appears to “accept the ‘disordered’ children as having little or no control over their actions” (Graham, 2008b: 21).

Many voices of concern are springing up against the use of medication (Lakoff, 2000: 150; Sandler & Bodfish, 2008:105; Weyandt & DuPaul, 2008:316) and the overuse of stimulant therapy (Sandler *et al.*, 2008:111), as it is not guaranteed to benefit all cases in a similar or a positive way (Plumer & Stoner, 2005:290). In this regard, (2008a:90) refers to the “(dis)illusion” and the “paradoxical effect” of medicines.

The long-term positive effects of medication have not been indisputably proven (Heriot, *et al.*, 2007:121; Sandler, *et al.*, 2008:111; Young & Amarasinghe, 2010:127), and are not necessarily long-lasting, as they cease without the medication, often resulting in more agitation and anxiety (Gomes, 2008:94). Furthermore, in the case of the abuse of medicine, addiction becomes a danger (Cowan, 2002). These stimulants also have reported nominal treatment-emergent side-effects (Sandler, *et al.*, 2008:111), such as sleep disturbance, appetite suppression and weight changes, emotional instability, growth retardation and headaches (Barkley, 2005:269; Graham, 2008:90).

Yet, despite all the concern, the consumption of medicine for ADHD-related symptoms is still increasing (Graham, 2008a: 86). Some physicians suggest that the medication should not be used continuously, in order for the individual to learn to manage ADHD without it (Mehl-Madrona, 2005: 1). This contributes to the growing use of complementary and alternative approaches in the treatment of ADHD (Sandler, *et al.*, 2008a:111)

Neurotherapy, also known as EEG biofeedback or neurofeedback training, is an attempt to normalise ADHD brainwave responses to stimuli; and it is seen as, “an effective alternative to stimulant medication” (Steenkamp, 2001:95). It teaches the individual to focus on his/her brainwave motions, applying swift computers, which make available both auditory and visual feedback, unfortunately at high cost, because of the expensive equipment used (Sonna, 2005:143).

Dietary intervention is also an attempt to help decrease the symptoms of ADHD, especially the aspect of restlessness (D’Adamo, 2001:133). Furthermore, *multivitamins* are used to supply what the brains needs for proper functioning (Sonna, 2005:41). *Homeopathic medication* is also utilized in an attempt to control the symptoms of ADHD, but it takes a long time to show effects, and is therefore less popular (Barkley, 2005: 269). Furthermore, *essential fatty acids*, such as fish oil, can contribute to the individual’s wellbeing (Sonna, 2005:39), while specially coloured *eyeglasses* can improve the visual perception (Gomes, 2008:104) of the individual diagnosed with ADHD.

It is a well-known fact that medication alone is insufficient in the management of ADHD, and has “failed to provide a solution to the ‘problem’ it was meant to solve” (Graham, 2008a:92). Each individual is a unique being with unique needs and strengths. That is why a multimodal approach, namely a combination of approaches by a multidisciplinary team of specialists, usually provides the best results (Young & Amarasinghe, 2009:116).

2.3 Remedial and educational measures

Based on the “within-the child deficit-model” (Graham, 2008a:91), school-going learners diagnosed with ADHD are often assisted in dealing with school-related challenges, such as adjusting to school, or working out homework schedules, through remedial teaching and the teaching of learning and coping strategies (Rief, 2005:57).

Psycho-educational management refers to the emphasis of the learner’s learning abilities in relation to his/her overt behaviour (Riding & Rayner, 2005:100). Classroom accommodations include measures, such as “recorded textbooks” and “note-taking services”, as well as support groups and individual counselling (Swartz, *et al.*, 2005:648). The assistance of a remedial specialist, speech therapist and an occupational therapist can be valuable with regard to perceptual and co-ordination difficulties (Rief, 2005:233; Sonna, 2005:15), again confirming the significance of a multidisciplinary team and a multimodal approach for the management of ADHD (Heriot, *et al.*, 2007:121; Gooding, 2007a:40; Graham, 2008a:92).

2.4 Psychological management

The point of departure of the “psychological model” is that the child “*can exert or learn self-control*” (Graham, 2008b: 21). A professional psychologist usually undertakes a proper assessment to establish the individual’s emotional stability and perception. Therapy and counselling are often used in an attempt to alleviate the problems related to the disorder (MacGraw, 2005:15).

This would include *family therapy* (Hallowell & Ratey, 1995:136), as well as *individual therapy* for the diagnosed individual and other individuals involved in the case, such as the parents. Emotional and social support are crucial for the proper understanding of ADHD, good communication, healthy relationships and building the individual’s self-esteem, by focusing on positive, rather than negative aspects, as well as uncovering and practising existing strengths (Hallowell & Ratey, 1995:144; Lawlis, 2004:249; Rief, 2005:84; Sonna, 2005:72).

Cognitive behavioural therapy (Graham, 2008a:92), such as rational-emotive therapy (RET), can be done – in order to manage the symptoms of ADHD. This involves the examination and improving of behaviours and interaction through skills teaching and positive reinforcement (MacGraw, 2005:64; Rief, 2005:61). Cognitive therapy is especially useful for adult sufferers of ADHD, because not all people can learn effective strategies to overcome their challenges (Young & Amarasinghe, 2009:126). However, the success of cognitive therapy is doubtful when applied by itself, because of its focus on cognitive, rather than educational interventions (Graham, 2008a:93).

After consideration of all the above-mentioned approaches, this chapter strongly argues for *behaviour modification* to be dominant in the multimodal approach to ADHD, to enable the individual to learn new socially approved behaviours - implemented during therapy and reinforced at home, in the school and in the social environment, as will be discussed in the next section.

3. Behaviour modification as a way of managing ADHD

The challenges experienced by the individual diagnosed with ADHD are a reality that must be faced on a daily basis, by all people involved with the individual. Behaviour cannot

easily be altered, because it can be determined by heredity, or strongly engrained, but should be modified to render it more acceptable, in order to help the individual with ADHD to live a fulfilled life in society, as an accepted human being (Gomes, 2008:98). Consequently, behaviour modification is often applied to amend the unacceptable and/or inappropriate behaviour (Sonna, 2005:153).

3.1 What is behaviour modification?

Behaviour modification is a therapeutic intervention practice, involving therapeutic techniques based on the theory of operant conditioning of Skinner and other behaviour-learning theories (Gates, Newell & Wray, 2001:86). These theories are grounded in the truth that learning brings about change in behaviour, by means of the methodical and conditioned utilization of positive or negative reinforcement.

When a specific stimulus-response pattern is contingently reinforced, the individual is conditioned to respond (Hukamdad, Shahzad, Ali, Quadeer & Khan, 2011:904). Reinforcement is accomplished by means of anything that will strengthen the desired response, or weaken the undesired response.

This approach entails a technique whereby improper and inappropriate conduct is substituted by a more acceptable alternative (Gomes, 2008:99). The four basic principles of the theory are: "positive reinforcement, negative reinforcement, punishment and extinction" (Hukamdad, *et al.*, 2011:904). Behaviour modification can be distinguished from other techniques by the fact that it focuses only on observable, describable and measurable behaviours (Smith, 2011:1).

Through this approach systematic attempts are made to modify or strengthen the probability of the occurrence of behaviour, by reinforcing desired behaviour, and discouraging or ignoring undesirable behaviour. All attention is considered to be reinforcing, whether positive or negative. However, praise and rewards are more often used than punishment and ignoring - to accomplish the goals of behaviour modification. Punishment refers to an unpleasant stimulus after undesirable behaviour; while a reward refers to a pleasant stimulus upon desirable behaviour.

3.2 Why is behaviour modification needed?

Behaviour modification is effectively used to treat many disorders and can be very valuable in managing ADHD (Davies & Witte, 2000:135). It often happens that people, such as those diagnosed with ADHD, are branded as worthless or lesser individuals (Lawlis, 2004:55). As a result, they develop a low self-concept and self-perception of being unable to function properly and being incompetent and pathetic, further aggravating their deficient characteristics (Levine, 2002:327).

Instead, their *strengths* should be uncovered, focused on and further reinforced, by means of behaviour-modification techniques. For that reason behaviour modification can be used effectively.

Proper behaviour and interaction can be taught (Sonna, 2005:153). People involved with the ADHD-diagnosed individual should learn to respond to the ADHD-diagnosed individual differently (Barkley, 2005:106). For example, positive verbal praise, when justified and

consistently given, can be surprisingly effective. According to Plumer and Stoner (2005:291), the teaching of appropriate social skills will advance the individual's general social functioning.

3.3 How is behaviour modification done?

Behaviour modification can be used in conjunction with any other means for the management of ADHD-related behaviour, and it can be reinforced at home, school or in other social settings (Barkley, 2005:242; Lawlis, 2004:262; Rief, 2005:165; Sherman, *et al.*, 2008:348). It entails certain measures are used to both reinforce and strengthen the appropriate behaviour, or to reduce and discourage any behavioural difficulties. Examples of positive reinforcements are rewards, such as praise, approval, modelling, and shaping.

This does not only apply to the ADHD-diagnosed individual, but also to the parents, siblings and other people involved with the individual (Neethling, Rutherford & Schoeman, 2005:32).

The natural tendency to focus only on the positive reward, can be balanced by a combination of rewards and punishments, known as "response cost" (Hukamdad, *et al.*, 2011:904), which will assist in decreasing the individual's impulsive inclinations. Rewards should be tangible, especially for younger ADHD-sufferers; they should be granted frequently, and the feedback should immediately follow the behaviour (the closer, the better), in order to allow the individual to make the necessary associations (Young & Amarasinghe, 2009:117). Hukamdad, *et al.*, (2011:908), also emphasize that rewards or punishment should immediately follow the behaviour; and they should be consistent and fair.

Parent training forms a crucial part of the approach (Young & Amarasinghe, 2009:121). This should enhance parenting skills and assist parents in dealing with their challenges by means of appropriate behavioural techniques and intervention skills. They need relevant information and behavioural strategies to implement at each level of the child's development (Young & Amarasinghe, 2009:118).

This would include the identification and manipulation of behaviours, the targeting and monitoring of problematic behaviour, rewards for appropriate behaviour, such as praise, positive attention, tangible rewards, or a decrease in unwanted behaviours through "time-out", and effective commands, appropriate rewards, immediate feedback and positive reinforcement (Hukamdad, *et al.*, 2011:905). Parents should also guard against risk factors, such as depression, marital turmoil, and lack of support, by means of open discussion, appropriate information, basic coping strategies, support groups and counselling (Young & Amarasinghe, 2009:118; Gomes, 2008).

In the *school* environment, well-structured routines, rules and expectations are required by the ADHD-diagnosed individual, as well as the careful attention of the teacher (Rief, 2005:165). Realistic academic targets and behaviour goals can serve as motivating factors (Young & Amarasinghe, 2009:118). Approval can be as simple as a nod of the head, or a verbal sound, such as 'Mmmm', or a comment, such as 'well done'. Environmental manipulations can also be implemented, for example, seating the child away from any source of distractions.

The co-operation between school and home is important, and regular contact should be scheduled to assess the specific needs, progress and intervention procedures. Where possible and necessary, individualised approaches will be more successful and a "contingency contract" programme can be applied (Hukamdad, *et al.*, 2011:906). It is possible for the individual to learn to apply skills, such as making eye contact, giving compliments, taking turns, listening, problem-solving, verbal instruction ("thinking out loud"), obeying rules, teamwork, using time schedules, self-monitoring, emotional control, and self-reinforcement (Young & Amarasinghe, 2009:119-120).

Behaviour that is strengthened will recur, while behaviour that is not rewarded will probably fade away. According to Sherman, *et al.* (2008:347), gestures used by people involved with the ADHD-diagnosed individual, can influence the individual's performance, for example, with academic puzzles. People with more tolerance and acquaintance with intervention techniques, who can work well and co-operate within a multi-disciplinary team of specialists and who have a positive mindset, can also influence the development of a more positive outcome for the individual diagnosed with ADHD (Sherman, *et al.*, 2008:347).

Many skilled specialists consider behaviour modification as being the most appropriate instrument in the management of ADHD-related behaviour (Davies & Witte, 2000:135). People involved with ADHD-diagnosed individuals should assemble as much information as possible about behaviour modification - in order to increase their focus on any existing *strengths*, rather than on the deficiencies (Rief, 2005:14). Positive attention can be used effectively as reinforcement, for example, by praising well-meant attempts and refocusing or redirecting any failed efforts (Gomes, 2008:100).

4. Coaching as a way of managing ADHD

ADHD coaching is based on the coaching model used in athletics and life-skills coaching (Swartz, *et al.*, 2005:648). Coaching is an "important and relatively new profession" (Gates, *et al.*, 2001:87; Murphy, Ratey, Maynard, Sussman & Wright, 2010:546; Parker & Boutelle, 2009:205). Parents, caregivers and teachers have been coaching ADHD-diagnosed children for a long time, in order to manage their behaviour, but no-one has ever thought of this action in terms of a structured strategy, until recently, when the term was coined with regard to psychological supervision, support and goal achievement.

In 2002, a task force of coaches organized by the Attention Deficit Disorder Association (ADDA) wrote: "The Guiding Principles for Coaching Individuals with Attention Deficit Disorder" (Jaksa & Ratey, 1999). This document suggests elements that should be considered as essential to ADHD coaching; it establishes standards and outlines the ethical principles required to help people better understand ADHD coaching. Appropriate coaching not only provides supervision and support, but it also gives a sense of accountability and consistency.

The topic of ADHD coaching currently enjoys increased favour, even though it has not yet been researched extensively; and the effectiveness has not proven by many empirical research studies (Murphy, *et al.*, 2010:546). For the latter reason, some scientists remain sceptical about this approach (Swartz, *et al.*, 2005:648). However, several research studies (Hollin & Palmer, 2006; Jones & McCaughey, 1992; Jordan, Singh & Repp, 1989; Stevenson, Whitmont, Bornholt, Livesey & Stevenson, 2002; Zwart and Kallemyn, 2001;) have produced clear evidence of success with coaching.

4.1 What is coaching?

Dawson and Guarre's coaching model (2000) is a promising, innovative approach to ADHD-related difficulties (Plumer & Stoner, 2005:292; Swartz, *et al.*, 2005:648). Young and Amarasinghe (2010:126) see coaching as a "derivative of cognitive behavioural paradigms", based on a "collaborative mentoring partnership, which draws on an individual's personal strengths, and aims to provide structure, support and feedback".

This would entail the necessary emphatic and gentle psychological support and supervision (Carroll, 2006:4) for skills development, problem-solving and the management of own time and actions, by means of significant "complex dyadic interactions" (Gates, *et al.*, 2001:87). This approach should help to manage the symptoms of ADHD, as well as in providing the encouragement to independently develop internal and external structures for taking responsibility for reaching specifically set goals (Jaksa & Ratey, 1999; Parker & Boutelle, 2009:205).

Plumer and Stoner (2005:292) contend that coaching is based on "correspondence training", focusing – as it does – on the reinforcement of behaviour that corresponds with the set goals. According to Swartz, *et al.* (2005:648), this process of "observational learning" strengthens the individual's ability to independently counteract any ADHD symptoms. At the same time, the individual gains self-efficacy, as well as the increased self-confidence needed to reach his/her goals.

Coaching, with reference to ADHD, involves a "collaborative alliance" (Young & Amarasinghe, 2010:127). It involves the supervision of behaviour, strategies and tasks, by a person to whom the ADHD-diagnosed individual must be accountable - whether the ADHD-diagnosed individual be an adult or a child. Clearly, the coaching principles must remain the same; it is the strategies and tasks that have to be age-appropriate, and need-specific (ADDA, 2002; Quinn, Ratey & Maitland, 2000; Wallace, 1998).

The basis of coaching is that the coach and the ADHD-diagnosed individual should work together to set goals and develop the tools, strategies and confidence necessary to help the individual overcome the behaviour difficulties encountered, and to replace any unacceptable behaviour with the correct behaviour for the specific situation (Hallowell & Ratey, 1994; Jaksa & Ratey, 1999; Swartz, *et al.*, 2005:648).

4.2 Why is coaching needed?

According to the Diagnostic Criteria from DSM-IV-RT (2000) and the Diagnostic and Statistical Manual of Mental Disorders (1994), executive functioning issues, such as time management, prioritization, procrastination, and realistic views of a task or situation are among the many aspects which cause behavioural difficulties for those diagnosed with ADHD (American Psychiatric Association, 2000; American Psychiatric Association, 1994).

Others in the list provided by the DSM-IV include differences in learning styles between parents and children, learning disabilities resulting from the inability to process and retain information, the inability to pay attention for lengthy periods of time, the inability to obtain and organise information, the inability to self-regulate and self-monitor own behaviours and tendencies, the lack of accountability, the inability to form and maintain lasting relationships (American Psychiatric Association, 2000; American Psychiatric Association, 1994).

These areas of concern are typically addressed by means of behaviour- modification coaching.

Coaching is an excellent tool for parents of small children who have been diagnosed with ADHD, and also for the adult struggling with organisational and time-management aspects, both in the private, as well in the professional sectors of daily life (Jaksa & Ratey, 1999; Plumer & Stoner, 2005:292; Swartz, *et al.*, 2005:648). Coaching helps both children and adults suffering from ADHD-related difficulties, to focus on the various aspects of their task, without the feeling that they are being reprimanded or 'bossed' around, as in the case of children, and criticized and picked on, as in the case of adult sufferers (Chronis, Chacko, Fabiano, Wymbs & Pelham, 2004).

Coaching helps individuals to concentrate better on specific aspects and personal *strengths*, often not obvious. Frequently, in such instances, incorrect behaviours are learned as mechanisms for coping with perceived difficult situations. Coaching can then re-direct and correct incorrect behaviour habits (Quinn, *et al.*, 2000). Often the order of importance of a task's steps eludes an individual completely, resulting in errors, accidents and frustrating delays.

Coaching helps in the elimination of the frustration of task re-direction, and it teaches the ADHD-diagnosed how to develop the ability to set goals and keep to the aims required to complete the task. Bear in mind that the major problems of ADHD are the lack of organizational skills and consistency, mutual respect, trust and compatibility. These are key aspects of the coaching process designed to foster accountability and responsibility, and to minimise fear of failure, lack of self-esteem and lack of self-confidence on the part of the ADHD-diagnosed individual (Jaksa & Ratey, 1999).

Coaching helps individuals of all ages to make positive, lasting changes that will impact their lives long after they leave school and enter adult life. Chronis, *et al.* (2004), confirms that coaching teaches individuals diagnosed with ADHD how to develop the necessary correct skills that they will need to employ throughout life. Through coaching, the individual gains the responsibility to function independently (Plumer & Stoner, 2005:298) and develops the self-regulating skills needed for self-determination and the self-management of ADHD-related challenges (Parker & Boutelle, 2009:205). It can also effectively assist the individual with problems, such as procrastination, lack of concentration, poor planning, anxiety, social incompetence or time management (Swartz, *et al.*, 2005:648).

4.3 How is coaching done?

Coaching normally involves pairing an individual (child or adult) diagnosed with ADHD with another person, who then serves as his/her coach (Plumer & Stoner, 2005:292). Through their "mindful involvement" (Carroll, 2006:4) they finalise goals, suggested by the individual diagnosed with ADHD, after which behaviour monitoring, supervision, encouragement and support, provision of feedback, as well as contingency management follows, with the aim of learning new and appropriate behaviour.

ADHD coaches are usually those closest to the ADHD-diagnosed individual, i.e. the parents, older siblings, peers and teachers, although there may also be some therapists and

other professionals involved in the individual's coaching. The most important point is, that however many different people coach any one individual at different times of the daily routine, that they should all be synchronised and in agreement on the type of coaching, as well as on the requirements and the strategies being used. This will prevent confusion and frustration of all concerned (Gomes, 2008; Jaksa & Ratey, 1999; Swartz, *et al.*, 2005:648).

Together, the coach and the individual diagnosed with ADHD undertake difficulties, such as time-management and problem-solving (Swartz, *et al.*, 2005:648).

Precisely how ADHD coaching is done will depend on who is being coached and who is doing the coaching. When dealing with *children* diagnosed with ADHD, parents, teachers and sometimes older siblings, peers or caregivers can serve as coaches; and the coaching work should be done on a daily basis, in the form of guidance, reminders and supervision of tasks, such as routines, habits, homework, or household chores. Coaching, in this instance, is an ongoing strategy that serves as guidance for the ADHD-diagnosed child to learn the correct techniques with which to work, both at that moment in time, as well as in the future (National Resource Centre on ADHD, 2003). Coaching entails pertinent questions that stimulate reflective thinking, in pursuit of planning to reach one's goals (Parker & Boutelle, 2009:205).

This cognitive element assists the individual to acquire awareness of his/her own behaviour and the required behaviour changes (Swartz, *et al.*, 2005:648). It enables the individual to apply the behaviour without the presence of the coach – in the end.

Coaching children is a little more involved than coaching *adults*, but the basic strategy remains the same. Although the ADHD coaching partnership is still flexible and designed to meet the needs of the ADHD adult sufferer, coaching at this level allows more freedom of thought, action and decision-making, while at the same time, requiring a higher level of commitment and accountability.

Coaching serves as a support system to assist the ADHD-diagnosed adult in learning how to manage time, develop organisational skills, determine priority of task performance, and it provides the perfect platform for the development of personal accountability and responsibility (National Resource Centre on ADHD, 2003).

4.4 Who does the coaching and who gets coached?

According to the International Coach Federation (2003) (ICF) - an international association of personal and business coaching that is evolving as the principal governing body for this field - there is currently no specialised schooling or licensing required in becoming a coach or a coach who specialises in ADHD (www.coachfederation.org). Yet, Murphy, *et al.* (2010:546), explain that a specialist coach must undergo meticulous training at an institution, in order to gain certification.

Quite a number of professional institutions are now training coaches to work with ADHD-diagnosed individuals, such as the Association for Professional Executive Coaching and Supervision (APECS) (Carroll, 2006:4; Murphy, *et al.*, 2010:546). This is important as regards the quality control and reliability of this new profession. This is vital in developing the appropriate coaching skills, such as "listening, reflection, questioning and empathy" (Carroll, 2006:4; Swartz, *et al.*, 2005:651).

The designated coach should be committed and consistent in his/her coaching approach. A good knowledge of the needs and difficulties faced by the ADHD-diagnosed individual is required. Knowledge of ADHD-related issues, such as in the case of parents acting as coaches, is also needed in order to coach someone who has been diagnosed with ADHD (Carroll, 2006:4; Swartz, *et al.*, 2005:648).

Coaching is, generally speaking, a two-people process. Although the parents are the primary 'coaches' for their ADHD-diagnosed children, they may need outside help, in the form of professional coaching, from a counsellor, psychologist or from marriage and family therapists better versed in the more intricate aspects of the effects of ADHD behaviour on the family in general (Carroll, 2006:4; Murphy, *et al.*, 2010:546).

When we speak of coaching *children* diagnosed with ADHD, the coach may frequently be a different person in different settings, i.e. the parents could take turns coaching the child at home and/or in social settings, according to the situation, the need, the place and/or the task being dealt with. At school, the teacher would be the child's coach. On the playground, the coach could be an appointed more mature peer or friend, to whom the child looks up and admires, or a student teacher, specifically appointed to coach play-time behaviour (Jaksa & Ratey, 1999).

ADHD coaching may be helpful to *adults* suffering from the effects of ADHD, but only if they recognise the importance of their commitment to the process. Children are reliant on their parents to know what is best for them and will willingly follow coaching directions, without being self-conscious about it. Adults, however, need to admit that they have a problem that they are unable to overcome alone. To do this, they have to entrust the managing of their problem-solving strategies to another; thereby, relinquishing their control over the process, something that adults often struggle with (National Resource Centre on ADHD, 2003).

If ADHD-diagnosed adults need assistance in dealing with these practical challenges in daily life, a coach may be a good source of help (Carroll, 2006:4; Murphy, *et al.*, 2010:546). However, if the adult needs assistance with emotional, psychiatric, or interpersonal problems, then a professionally licensed therapist should be consulted. When both types of assistance are needed, as is often the case, it may be helpful to select a coach and a therapist who will agree to work together - thereby forming a team group to provide the necessary support and accountability to the sufferer (Gomes, 2008; National Resource Centre on ADHD, 2003).

5. Coached behaviour modification in the management of ADHD

In the majority of cases, especially those involving adults suffering from the effects of ADHD, coached behaviour modification is the most effective route, because it requires daily feedbacks, adjustments and reorganisation. It not only provides much-needed support and encouragement, but it also requires accountability, commitment and trust, from both the ADHD sufferer, as well as from the chosen coach. As a general rule, coaches deal with problems in everyday living, such as organization, time management, memory, follow-through, and motivation.

Their focus is on what, when and how, but not so much on the why (National Resource Centre on ADHD, 2003).

All cases of ADHD are unique and the ADHD coaching involves the use of different and unique intervention skills to suit each particular individual (Gooding, 2007a:41; Murphy, *et al.*, 2010:549). Although the symptoms may be similar, the frequency, duration, location and content will differ for each individual (Swartz, *et al.*, 2005:649). Through coaching, behaviour modification can be done more effectively. It is a 'gentler' way of re-directing behaviour than simply issuing a set of instructions (Gates, *et al.*, 2001: 86).

Like all coaching, ADHD-coached behaviour modification focuses on the specific needs of the individual whose behaviour is being adjusted and modified (Young & Amarasinghe, 2010:128).

The most common question asked by ADHD sufferers is: 'How long will I need coaching?' The answer to this question is once again different for each unique individual. The duration of ADHD coaching depends on the difficulties being experienced by the individual, as well as the individual's goals and rate of progress, amongst other things. The individual's determination and commitment also play an important role in the length, progress and conclusion of the coaching process (Carroll, 2006:4; Murphy, *et al.*, 2010:546).

For most parents, their child's behaviour modification coach may last as long as their child lives at home, which would probably be about the first 20+ years of their child's life. Thereafter, depending on their personal relationship, coaching by the parents could go on for even longer than that. The choice belongs to both parties equally. Some young adults enjoy the time they spend with their parents, especially same-sex parents, and choose to continue being accountable for their progress to that parent (Hyde Park, Ratey, & Jaks, 2002).

Many however, learn to cope by themselves and choose to ask for help only when absolutely necessary. Frequently, the individual's response to coaching is affected by their own sense of self-esteem and personal value. The higher their self-esteem, the more often they will resort - by themselves - to finding the appropriate coach for their need (Hyde Park, *et al.*, 2002).

Coached behaviour modification usually progresses according to the following format:

An in-depth *discussion* takes place during the initial meeting (Swartz, *et al.*, 2005:650) or first session, where the ADHD-diagnosed adult and the assigned coach get to know each other, the process is explained and the coaching relationship is defined in terms of needs, difficulties, requirements, strategies to be used, accountability and responsibility. Both individuals discuss what the ADHD-diagnosed individual wants to achieve, and what his/her present symptoms, difficulties and strengths are.

The first important aspect of coaching is to build up a good collaborative relationship and to collect a proper case history. Thereafter, one would compile an acceptable schedule for the coaching process. Small steps at a time and different coaching goals then become the order of the day. Initially, one basic routine is striven for per week, and then gradually more goals are added. Thereafter, the different techniques, tools and actions for accomplishing the goals will be brainstormed. These have to be implemented consistently. Furthermore, the

measures for supervision, monitoring and support need to be agreed upon. Throughout the process, readjustments will need to be made.

Key aspects of the process are explained, such as personal phone calls, or e-mails as reminders and means of encouragement, as well as future face-to-face contact sessions. Not more than three long-term goals and tangible, measurable, observable, specific, reasonable and possible achievements should be identified at this stage; and additionally, a plan of action, suggested by the ADHD-diagnosed individual and agreed upon by both parties, is set up (Swartz, *et al.*, 2005:650).

The ADHD-diagnosed individual usually determines the details of the discussion, with the coach's encouragement, but both the coach and the ADHD-diagnosed individual talk about what's working and what can be improved, and/or changed. The achievement of the long term goals can extend past the coaching process of about eight weeks. This first discussion session can last about 90 minutes (Swartz, *et al.*, 2005:650), but this time limit is usually agreed upon at the start of the appointment.

Thereafter, *regular sessions* last approximately 30 minutes per week, or bi-weekly, to assess goal-accomplishment (Swartz, *et al.*, 2005:650). It is during these shorter sessions that short-term goals or easily attainable smaller stepping stones are set, while long-term goals are adjusted, and further structures and strategies are developed, with the aim of building more self-confidence. During these sessions, the action plan for the following week is also determined and agreed upon (Jaksa & Ratey, 1999; Swartz, *et al.*, 2005:650) then it should be written down and signed by both parties.

Rewards and punishment (referred to as "consequences" by Swartz, *et al.* (2005:651), initially suggested by the ADHD-diagnosed individual and agreed upon, form an important part of the process of coaching, in order to manage the ADHD difficulties. These guidelines serve the purpose of reinforcement of the appropriate behaviour; and they will ensure the client's commitment to the coaching process. The outcome is to get the ADHD-diagnosed individual to eventually monitor his/her own behaviour.

One very interesting aspect of coaching that is introduced at a higher level of responsibility than that found in the coaching of small children, is the importance of *check-ins* (National Resource Centre on ADHD, 2003). These are a crucial part of the coaching process and require that the ADHD-diagnosed individual send the coach a brief status update on each planned action – either by *e-mail* or by telephone. This fosters accountability and responsibility on the part of the ADHD-diagnosed individual, and also contributes to eliminating any procrastination, and helps to keep the individual on track between sessions.

The coach and the individual agree on how often these 'check-ins' should occur. Although such 'check-ins' should form part of the daily process; in time, these should have longer time lapses in between, depending on the individual's progress, commitment and trustworthiness (Swartz, *et al.*, 2005:650).

Through coaching, the individual is helped to focus on the task at hand; to manage time more effectively; to prioritise responsibilities and manage tension; and to control unacceptable behaviour (Gooding, 2007a:40). This can be done through repeated monitoring, the provision of regular feedback and praise. Tangible success always has a powerful effect (Murphy, *et al.*, 2010:550). Accomplishments and establishing a good habit serve to gradually build more confidence, self-awareness and self-management.

Ultimately, the goal of coaching is to provide support - until the individual learns the necessary skills to be able to function independently (Plumer & Stoner, 2005: 292), and stay on track over time - be that individual an adult or a child. The purpose of behaviour modification coaching is to provide the resources, strategies and skills needed to equip the individual for life (National Resource Centre on ADHD, 2003; Quinn & Ratey, 2002).

5.1 Does coaching take the place of therapy?

No, coaching is not a substitute for therapy. Both coaching and therapy are based on a wellness model (Parker & Boutelle, 2009:205); and additionally, based on trust. This involves complex relationships and change, giving feedback, and learning new skills (Summerfield, 2006:24). However, the coach's task is "neither counsellor nor advisor, but a collaborator" (Swartz, *et al.*, 2005:648).

Coaching aims to improve performance and to make the ADHD-diagnosed individual more independent and responsible for his/her own behaviour and actions through supervision (Murphy, *et al.*, 2010:547). It is important that coaching be approached with the full co-operation of the individual needing help. ADHD-diagnosed individuals need to understand the importance of working with a behavioural coach for the coaching process to be successful and effective (Hyde Park, *et al.*, 2002; Shintel & Keysar, 2007).

The ADHD-diagnosed individual should be relatively healthy, psychologically speaking, as coaches are not expected to give therapy for serious psychiatric or mental disturbances. The individual should also accept that he/she is suffering from ADHD-related problems and needs assistance and coaching to manage these problems. The individual also needs to commit him/herself to the coaching intervention (Murphy, *et al.*, 2010:551).

Therapy is based on the premise that remedial change and emotional healing are needed (Murphy, *et al.*, 2010:547). Where emotional problems, such as depression or other psychological issues hinder daily functioning, these need to be addressed by professionals, such as the family doctor, the psychologist or the psychiatrist (Hallowell & Ratey, 1994; Murphy, *et al.*, 2010:551; Quinn & Ratey, 2002). If these issues remain untreated, coaching will not be successful. In such cases, it is advisable for the coach to work in tandem with the individual's various healthcare providers to overcome these obstacles (Wallace, 1998).

The purpose of *coaching* is to support the development of methods to manage the day-to-day ADHD-related challenges (Gooding, 2007a:40). It is based on "action learning" (Murphy, *et al.*, 2010:547), that is to say, learning that supports the individual up to the point where he/she can manage by him/herself. Coaching is a form of verbal reminder, a guiding of the methods for carrying out a task, or of adjusting behaviour, especially where children are concerned. For the adult sufferer it assists with the personal and professional growth and development, based on the pursuit of specific outcomes. These, in turn, are linked to personal or professional success (Gomes, 2008; Quinn & Ratey, 2002; Quinn, *et al.*, 2000; Wallace, 1998).

The main aim of coaching is to show the individual how to achieve these goals in the most practical manner possible (Quinn & Ratey, 2002; Quinn, *et al.*, 2000). In coaching the emphasis is on the individual's ability to "take action on life goals in a balanced and fulfilling way" (Parker & Boutelle, 2009:205). The ADHD-diagnosed individual is seen as resourceful

and creative. The individual is helped to develop his/her own systems of effective functioning in pursuit of his/her goals.

Therapy, on the other hand, deals with the healing of past experiences of pain that have resulted from the stigma attached to the ADHD diagnosis (Murphy, *et al.*, 2010:547). Whether in a family situation or outside it in social settings, such as school or work situations, ADHD is hugely misunderstood (Hallowell & Ratey, 1994; Jakska & Ratey, 1999). This failure to understand, coupled with the resulting dysfunction and conflict within an individual, can so easily cause pain and insecurity. Such trauma is best addressed in therapy (Gomes, 2008).

According to the International Coach Federation (2003), there are several issues that can interfere with the coaching process. These will often require referral to a medical or mental health professional, for example, in cases where the ADHD-diagnosed individual is not able to use simple self-management or organizational strategies to achieve the desired goals, despite the coach's support, encouragement and reminders; in cases where the ADHD-diagnosed individual has a co-existing psychiatric condition, such as depression, bipolar disorder, anxiety disorder, substance abuse, or personality disorder; where the ADHD-diagnosed individual has stressful life circumstances, such as marital problems, divorce, or the death of a loved one, or where the ADHD-diagnosed individual has a serious physical illness or other chronic medical condition (Hallowell & Ratey, 1994; Quinn & Ratey, 2002; Wallace, 1998).

Under such circumstances, coaching should be carried out in collaboration with the medical or mental health professionals involved in the ADHD-diagnosed individual's care. In such cases, the ADHD-diagnosed individual may benefit from the addition of traditional treatments, such as medication and psychological therapy, as is often the case where a multimodal approach to treatment would work best (Hallowell & Ratey, 1994).

The focus of therapy is often on resolving difficulties arising from the past which hamper an individual's emotional functioning in the present. Coaching, on the other hand, is forward-moving and future-focused, providing support, hope and encouragement (Hyde Park, *et al.*, 2002; Shintel & Keysar, 2007). While positive feelings/emotions may be the natural outcome of coaching, the primary focus is on creating workable strategies for achieving specific goals in the individual's work or personal life. Coaching emphasises action, accountability and follow-through. Therapy, on the other hand provides a platform for reflection, and working through difficult emotional feelings that result from the conflict associated with ADHD (Hallowell & Ratey, 1994).

6. A possible coached behaviour-modification programme

The *Coping Skills Programme* of Behaviour Modification (Gomes, 2008) is a valuable programme to use in a coaching situation, as it provides many flexible alternatives for all ages and situations. The Coping Skills Programme guides the designated coach through a process of initial investigation of the presenting difficulties, in order to define the most appropriate way to deal with and resolve problematic situations and behaviours. Used correctly, systematically and consistently, the Coping Skills Programme is one of the most practical and effective programmes to use. Its flexibility makes it ideal for all age groups, situations and needs (Gomes, 2008).

Some of the strategies used by the Coping Skills Programme include an initial investigation into the specific needs of the family or individual faced with ADHD-related issues and problems. This investigation is done by means of observation and dialogue; and it is not just based on the existing information available via the media and other resources. This method of investigation encourages parents and other designated coaches to observe behaviour based on ability and strengths, rather than simply to focus on deliberate misbehaviour. It requires that the parent really observe the child's behaviour and determine what it is that provokes such behaviour. Once this fact has been established, strategies may be set in place to replace the undesirable behaviour with a more desirable alternative (Gomes, 2008, Hukamdad, *et al.*, 2011).

Thereafter, other strategies and skills can be set in place, such as coaching contracts, where applicable, the setting of reasonable and attainable goals, accountability and responsibility, positive feedback from the parents and designated coaches, the selection of tools and strategies to assist with executive functioning issues, such as calendars, timers, planners, study buddies/coaches, journaling for older children and adult individuals, and time management.

A learning styles inventory is sometimes also implemented, to show parents why their children so frequently have difficulty in paying attention in class and during homework sessions at home. Often the conflicting learning styles of teachers and learners, as well as those of parents and their children are all that stand between doing well and struggling through the school day (Gooding, 2007a:40; Graham, 2008a:92; Heriot, *et al.*, 2007:121).

Classroom arrangements are also discussed and adjusted, where possible, in conjunction with teachers and other scholastic staff, in order to improve the focus and decrease distractibility, and also the establishing of consistent daily routines for all members of the family, extended family and care givers (Gomes, 2008, Rief, 2005:57).

Periodical adjustments of learned skills have to be carried out as soon as each new skill has been mastered; that is to say, a new skill should remain in place, in its original form, only as long as it still serves its purpose for task execution. As soon as the skill stops being effective, it needs to be upgraded or adjusted, to help with the next difficulty. For example, a baby learns how each type of food 'behaves' in his/her plate, by handling it with his/her fingers first (skill 1) - a natural skill that all babies have. Soon, mommy places a spoon in the baby's hand and teaches him/her how to use the spoon (skill 2). This is not a natural skill; and it will, therefore, take a little longer to master.

The spoon may, at first, be used as an addition to feeding with the fingers; it may even be used as a toy, but it will eventually be used properly, at which point the skill needs to be upgraded to using a fork, and so on. It is still the same skill, but is being upgraded continuously to the next level, in small steps one at-a-time (Gooding, 2007a:40; Graham, 2008a:92).

If periodical adjustments are carried out regularly and efficiently, the child will internalise the 'skill', and later learn to adapt it to adult life situations, having learned how to exhaust all the possibilities in one specific skill, changing it and then using the adaptation for a different difficulty. Non-ADHD-diagnosed people do it automatically all the time; it is how humans survive; they adapt to their surroundings and their needs. However, this is not a

natural behaviour mechanism for ADHD-diagnosed individuals; perhaps, because early on in their lives their mothers tried to compensate for their every difficulty.

For ADHD-diagnosed children, skills have to be learned and integrated. When skill adjustment is carried out speedily, the child's confidence in his/her ability to adapt to changes - the biggest difficulty for ADHD sufferers - is boosted, and ADHD-related difficulties become less prominent and problematic. This is the function of coaching: to help find, integrate, monitor and adjust the appropriate skills being learned and used (Hyde Park, *et al.*, 2002).

Chronis, Chacko, Fabiano, Wymbs and Pelham (2004) discovered in their research that behavioural parent training (BPT), in which parents are guided in how to coach their children's behaviour modification, is one of the most effective behaviour-modification processes in the treatment of ADHD-related misbehaviour. They found that, because so many aspects influence the child's behaviour and affect the parent's reactions to that behaviour, continuous programme adjustments are needed in the way parents teach their children, the style that they use, and how the children interpret what is being taught.

This is true in adult coaching also, in that adults have a tendency to assume various permutations in the outcomes of their actions. It is this aspect that results in the difficulties faced by adults with ADHD-related difficulties, the '*what-if-factor*'. For example: 'What if I do the work required, but nothing changes? If that is so, then why do the work? I might as well carry on as I have before'. Children don't question therapy in this way. Adults are the ones who will do this more frequently (Gomes, 2008).

Programme *follow-up* periods should take place from time to time, after the completion of the Coping Skills Programme, (Gomes, 2008), in order to make any necessary adjustments and deal with any difficulties that the parents might experience along the way, and which might not have been previously covered by the Coping Skills Programme. The parents, as and when they feel it is necessary, usually initiate these follow-up periods; and in some instances, there may be a short succession between follow-up periods, and then a longer gap until help is requested again. In other instances, follow-up periods may be less frequent and fewer in number (Gomes, 2008).

Programme follow-up periods are important for both the ADHD-diagnosed individual and the parents, and/or designated coach, as these provide the opportunity to make adjustments to the programme from time to time. Likewise, the parents/coaches benefit, because the up-date sessions serve as a form of support system where their questions may be answered, reassurance provided and new information obtained (Gomes, 2008).

7. Conclusion

The management of the challenging and difficult behaviour associated with ADHD presents a problem that causes stress for all persons involved, in the home, school and society at large. The management of ADHD-related problem behaviour is therefore a well-researched topic, and refers to an array of approaches.

In this chapter we have, however, argued for the use of a gentler approach, namely coached-behaviour modification, which is "extremely powerful" (Scoular & Linley, 2006:11) in modifying unacceptable or inappropriate behaviour. This is done through a mutual-

mentoring partnership, grounded on an individual's personal strengths. It involves the provision of emphatic psychological supervision, support, encouragement and feedback. It aims at confidence, internal structure, goal-directed action, task persistence and responsible functioning of the ADHD-diagnosed individual.

Our contention is aptly summed-up by Parker and Boutelle (2009:212): The suggested approach is appropriate to help individuals diagnosed with ADHD to "develop self-regulation skills for managing challenges caused by their executive function difficulties through methods that emphasise self-determination". It is important to constantly bear in mind that it is the behaviour that is undesirable and not the person.

8. References

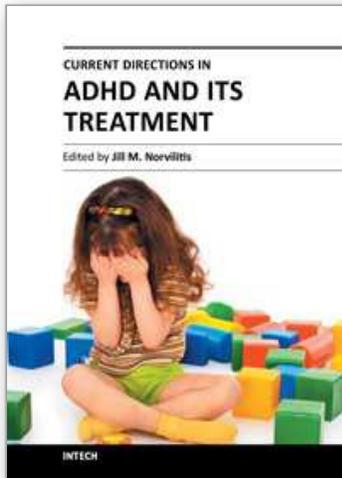
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The treatment of Attention Deficit Hyperactivity Disorder is a matter of ongoing research and debate, with considerable data supporting both psychopharmacological and behavioral approaches. Researchers continue to search for new interventions to be used in conjunction with or in place of the more traditional approaches. These interventions run the gamut from social skills training to cognitive behavioral interventions to meditation to neuropsychologically-based techniques. The goal of this volume is to explore the state-of-the-art in considerations in the treatment of ADHD around the world. This broad survey covers issues related to comorbidity that affect the treatment choices that are made, the effects of psychopharmacology, and non-medication treatments, with a special section devoted to the controversial new treatment, neurofeedback. There is something in this volume for everyone interested in the treatment of ADHD, from students examining the topic for the first time to researchers and practitioners looking for inspiration for new research questions or potential interventions.

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University Campus STeP Ri
Slavka Krautzeka 83/A
51000 Rijeka, Croatia
Phone: +385 (51) 770 447
Fax: +385 (51) 686 166
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InTech China

Unit 405, Office Block, Hotel Equatorial Shanghai
No.65, Yan An Road (West), Shanghai, 200040, China
中国上海市延安西路65号上海国际贵都大饭店办公楼405单元
Phone: +86-21-62489820
Fax: +86-21-62489821

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